

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 7-9, 20-22 and 31-32 are pending. Claims 7-9, 20-22 and 31-32 stand rejected.

Claims 7 – 9, 20 – 22 and 31 - 32 have been amended. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Cover Page

Applicants have deleted the assignee information shown on the cover page of the application because it is incorrect.

Rejections Under 35 U.S.C. §103(a)

Claims 7-9, 20-22 and 31-32 stand rejected under 35 U.S.C. §103 as being unpatentable over Japanese Patent No. 6-339150 of Matsui (“Matsui”). The Examiner has stated that

With respect to claim 7:

- 1) The recited “foreground image” of claim 7 corresponds to the foreground image component (@ 6) in Matsui;
- 2) The recited “shadow control module” corresponds to the steps/elements which generated the described threshold level from said foreground image (@ 6), and to the steps/elements that are inherent in Matsui which compared this generated threshold level to the pixels of the foreground image to generate a “shadow key” signal identifying those pixels which exceeded the threshold level and those pixels which did not exceed the threshold level;
- 3) The recited “shadow generation module” corresponds to the steps/elements in Matsui which actually selected/passed the shadow pixels to the shadow image (@ 7) based on the “shadow key” that was inherently produced by the described threshold process; and
- 4) The recited “shadowing module” is met by the steps/elements in Matsui which operated to produce the modified background image signal (@ 8) from the background image (@ 4) and the extracted shadow component (@ 7).

(p. 3-4, Office Action 3/1/04)

Applicants respectfully submit, however, that claim 7, as amended, is not obvious under 35 U.S.C. §103 in view of Matsui. Claim 7 includes the following limitations.

Apparatus for formation of a composite video image, the apparatus comprising:

a shadow control module that receives a foreground video image signal and generates a shadow key that identifies at least one selected pixel for which foreground shadowing is activated;

a shadow generation module that receives the foreground image signal and the shadow key and generates and issues a foreground shadow signal FGSh, in which each selected pixel appears in a shadow format; and

a shadowing module that receives the foreground shadow signal and a background video image signal BG and generates a modified background image signal, in which a foreground shadow is impressed on each selected pixel of the background image, wherein said shadowing module forms a sum signal β FGSh + (1 - β') BG, as said modified background image signal, where β and β' are real numbers lying in a range [0,1], selected so as to limit either an intensity of the foreground shadow or an intensity of the background image.

(Amended Claim 7) (emphasis added)

Applicants respectfully submit that Matsui does not disclose the limitation of forming a modified background luminance signal by adding portions of a foreground shadow signal to portions of a background image signal.

The Examiner has equated element 8 in Matsui with the modified background image signal as claimed. The Matsui abstract does not disclose that portions of the foreground shadow signal together with portions of the background image signal comprise element 8. Rather, Matsui discloses that the background picture data 8 is formed in part from the “shade of the major part.” This could possibly be equated to a foreground shadow signal, but there is no disclosure as to a portion of such signal being used to create the modified background image signal, nor is such limitation rendered obvious by the teachings of Matsui.

Additionally, applicants respectfully submit that, because Matsui does not disclose such components of a modified background image signal, Matsui cannot disclose the limitation of varying proportions of each component as claimed. Proportions of each component of the modified background image signal are used to limit either an intensity of the foreground shadow

or an intensity of the background image. Applicants respectfully submit that this limitation is not disclosed, nor rendered obvious by Matsui.

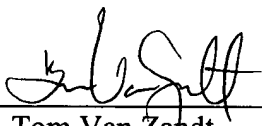
For these reasons, applicants respectfully submit that claim 7, as amended, is not rendered obvious by Matsui. Given that claims 8 and 9 depend from claim 7, applicants respectfully submit that claims 8 and 9 are, likewise, not rendered obvious by Matsui.

Further, given that claims 20 and 31 contain the limitation of forming a modified background luminance signal by adding portions of a foreground shadow signal to portions of a background image signal, applicants respectfully submit that claims 20 and 31, and their respective dependencies are, likewise, not rendered obvious by Matsui.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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